

What is claimed is:

1. A mover assembly that adjusts a position or shape of an object  
2 along a first axis, the mover assembly comprising:  
a motor including a motor output that moves; and  
4 a coupling assembly including a stage that couples the motor output to the  
object and a stage guide that guides the motion of the stage along the first axis.
- 2 2. The mover assembly of claim 1 wherein the motor output is moved  
2 along the first axis and about the first axis and wherein the stage guide is a linear  
bearing that allows for motion of the stage along the first axis and inhibits motion  
4 of the stage about the first, about a second and third axes, along the second axis  
and along the third axis.
- 2 3. The mover assembly of claim 1 wherein the motor output moves in a  
2 step-like fashion.
- 2 4. The mover assembly of claim 1 wherein the mover includes a  
2 piezoelectric element that causes rotation of the motor output.
- 2 5. The mover assembly of claim 4 wherein the motor includes a pair of  
2 opposed jaw elements that engage the motor output and the piezoelectric element  
moves the jaw elements relative to each other.
- 2 6. The mover assembly of claim 1 further comprising a measurement  
2 system that provides information regarding the movement of the stage.
- 2 7. The mover assembly of claim 6 wherein the measurement system  
2 includes a first component that is secured to and moves with the stage.
- 2 8. A precision apparatus including an object and the mover assembly  
2 of claim 1.
- 2 9. A mover assembly that adjusts a position or shape of an object  
2 along a first axis, the mover assembly comprising:

a motor including a motor output that moves; and  
4 a coupling assembly including a stage that moves with the motor output, a  
stage guide that guides the motion of the stage along the first axis, and a  
6 measurement system that provides information regarding the movement of the  
stage.

2 10. The mover assembly of claim 9 wherein the motor output is moved  
2 along the first axis and about the first axis and wherein the stage guide is a linear  
bearing that allows for motion of the stage along the first axis and inhibits motion  
4 of the stage about the first, about a second and third axes, along the second axis  
and along the third axis.

2 11. The mover assembly of claim 9 wherein the motor output moves in a  
step-like fashion.

2 12. The mover assembly of claim 9 wherein the mover includes a  
piezoelectric element that causes rotation of the motor output.

2 13. The mover assembly of claim 12 wherein the motor includes a pair  
of opposed jaw elements that engage the motor output and the piezoelectric  
element moves the jaw elements relative to each other.

2 14. The mover assembly of claim 9 wherein the measurement system  
includes a first component that is secured to and moves with the stage.

2 15. A precision apparatus including an object and the mover assembly  
of claim 9.

2 16. A method for moving or positioning an object, the method  
comprising the steps of:  
providing a motor including a motor output that is moved along a first axis;  
4 coupling the motor output to the object with a stage; and  
guiding the motion of the stage along the first axis with a stage guide.

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17. The method of claim 16 wherein the step of guiding includes  
2 allowing for motion of the stage along the first axis and inhibiting motion of the  
stage about the first axis, about a second and a third axes, along the second axis  
4 and along the third axis.

18. The method of claim 16 further comprising the step of providing  
2 information regarding the movement of the stage with a measurement system.

19. The method of claim 18 wherein the step of providing information  
2 includes the step of coupling a first component of the measurement system to the  
stage so that the first component moves with the stage.